No. 675,041. Patented May 28, 1901.

A. L. HALDEMAN.

GATE SPRING.

(Application filed Jan. 7, 1901.)

(No Model.)

Fig. 1.

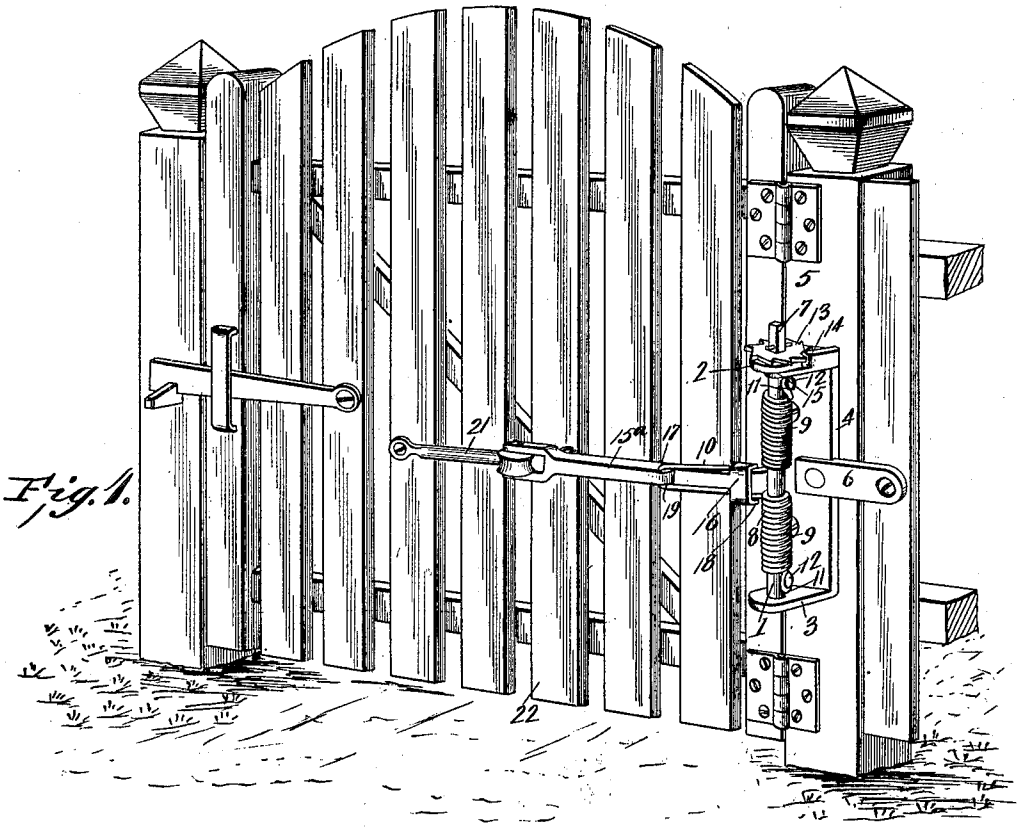


Fig. 2.

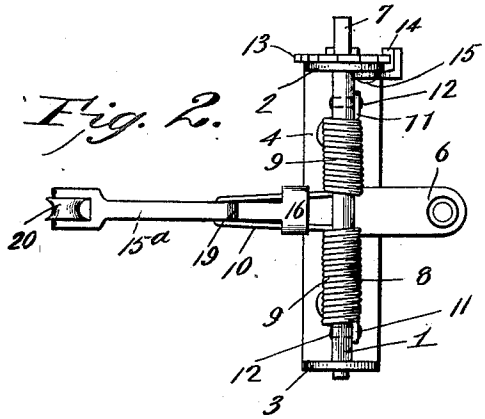
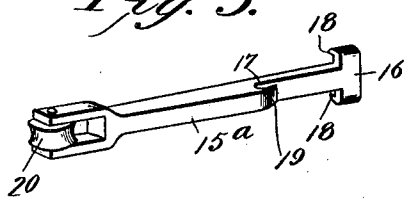


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ADDISON L. HALDEMAN, OF CAMPBELLTOWN, PENNSYLVANIA.

GATE-SPRING.

SPECIFICATION forming part of Letters Patent No. 675,041, dated May 28, 1901.

Application filed January 7, 1901. Serial No. 42,427. (No model.)

To all whom it may concern:

Be it known that I, ADDISON L. HALDEMAN, a citizen of the United States, residing at Campbelltown, in the county of Lebanon and State of Pennsylvania, have invented a new and useful Gate-Spring, of which the following is a specification.

The invention relates to improvements in gate-springs.

The object of the present invention is to improve the construction of gate-springs and to provide a simple and comparatively inexpensive one adapted to be readily applied to an ordinary swinging gate and capable of closing the same automatically and of being readily adjusted to strain it to the desired tension.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a gate provided with a gate-spring constructed in accordance with this invention. Fig. 2 is an elevation of the gate-spring, the device being detached. Fig. 3 is a detail perspective view of the arm which engages the gate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a vertical shaft journaled in suitable bearings of upper and lower horizontal arms 2 and 3 of a bracket 4, constructed of suitable metal and secured to a hinge-post 5, as clearly illustrated in Fig. 1 of the accompanying drawings. The bracket is provided with an intermediate arm 6, extending beyond the said hinge-post and arranged to be fastened to the adjacent portion of a fence to brace the parts. The shaft, which is disposed vertically, is provided with a squared upper end 7, and it receives a spring 8, located between the upper and lower arms of the bracket and composed of upper and lower coils 9, and an intermediate horizontally-disposed loop 10, arranged at the inner adjacent ends of the coils, which have their outer ends 11 secured to the shaft by suitable fastening devices 12, whereby when the shaft is rotated to the right the spring will be placed under tension. The vertical shaft carries a ratchet-wheel 13, which is engaged by a pivoted pawl or dog 14, and the said ratchet-wheel is secured on the squared or polygonal portion 7 of the shaft by means of a suitable fastening device located at the upper face of the ratchet-wheel and holding the latter between it and the shoulder formed by squaring or reducing the upper end of the shaft. The pawl 14 is pivoted at its front end 15 to the lower face of the upper arm of the bracket, and the rear portion of the pawl is enlarged to form a shoulder or engaging portion adapted to interlock with the ratchet-wheel. The inner edge of the enlarged portion of the pawl is bent laterally and beveled to form a tooth for engaging the ratchet-wheel. The rear portion of the pawl or dog forms a convenient grip or handle to enable it to be readily swung outward and inward.

The U-shaped loop of the coiled spring is interlocked with the inner or rear portion of a bar 15, provided at its inner or rear end with a head 16 and having a recess 17 at a point intermediate of its ends. The head 16, which extends laterally from the bar 15, is provided with inwardly-extending flanges 18, which engage the sides of the loop which extends back of the said head 16 and straddles the bar 15. The recess 17 is arranged at the outer face of the bar 15 to receive the bend of the loop, and the said recess 17 forms a thin projecting portion or flange 19, which is adapted to be bent inward after the bend of the loop has been placed in the recess, whereby the mouth of the recess is closed to confine the loop therein. The outer or front end of the arm or bar 15 is bifurcated to receive a grooved roller 20, arranged to run on a horizontal bar 21, secured to the gate 22, which is connected with the post 5 by suitable hinges. The bar 21, which is preferably rounded, enables the roller to move freely over the gate, and it assists in retaining the arm or bar in proper position.

The gate is provided with a suitable latch, and when the spring closes it automatically the latch will lock it in such position.

It will be seen that the gate-spring is simple and comparatively inexpensive in construction, that it is adapted to be readily applied to an ordinary swinging gate, and that it is capable of being readily adjusted to pro-

duce sufficient pressure on the gate to readily close the same.

What I claim is—

A device of the class described comprising a spring having a loop, means for supporting the spring, and a gate-engaging arm or bar provided at its inner end with a laterally-extending head engaging the sides of the spring, said arm or bar being provided between its ends with a recess receiving the bend or outer portion of the loop, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ADDISON L. HALDEMAN.

Witnesses:

WILLIAM FORREST,

SUSAN BOWMAN.